瀚荃股份有限公司
CviLux Corporation

RELIABILITY TEST REPORT

TESTITEM : 1.ELECTRICAL
2.MECHANICAL
3.ENV IRONMENTAL

SERIES NO. : CI01 Series Dual Row Wire to Board Conn. (Latch Type)

TEST EQUIPMENT : 1.INSERTION & REMOVAL APPARATUS
2.ELECTRONIC MEASURING APPARATUS
3.ENV IRONMENTAL APPARATUS

DATE OF TESTING :Sep.30.2005

TEST DEPART :R&D TESTER : Casey.Lin

CONTAINT : ATTACHED

CVILUX.CORP
2005.10.13
ISSUED

REVIEWED : Alex APPROVED : David VERIFIED : Casey .

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1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
1-1	Contact resistance	Dry circuit of DC 20 mV max.,100 mA max.	Less than 20 mΩ	Sample	20 mΩ max.
				1	1.99 mΩ
				2	2.07mΩ
				3	2.12mΩ
				4	2.10mΩ
				5	2.11mΩ
1-2	Dielectric strength	When applied AC 500V 1 minute between adjacent terminal	No change	Sample	500 V 1 minute
				1	OK
				2	OK
				3	OK
				4	OK
				5	OK
1-3	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ	Sample	1000 MΩ min.
				1	5.0×10^{5}
				2	4.6×10^{5}
				3	4.6×10^{5}
				4	4.6×10^{5}
				5	4.9×10^{5}

2. MECHANICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-1	Terminal crimp Tensile strength	When crimped AWG#22 size wire When crimped AWG#28 size wire	More than 5.0Kgf More than 1.3Kgf	AWG #22	AWG #28
				6.15Kgf	2.02Kgf
				7.49Kgf	2.78Kgf
				7.37Kgf	2.00Kgf
				6.47Kgf	2.85Kgf
2-2	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 600gram	Sample	600gram max.
				1	370 gram
				2	430 gram
				3	400 gram
				4	340 gram
				5	420 gram
2-3	Contact retaining force in insulator	Insertion speed 25± 3 mm per minute into housing	More than 1.5 Kgf	Sample	1.5 Kgf min.
				1	2.77Kgf
				2	2.57Kgf
				3	2.35Kgf
				4	2.44Kgf
				5	2.43Kgf
2-4	Single contact insertion force	Measure force insertion using 0.50mm square pin at speed 25± 3 mm per minute	Less than 700gram	Sample	700 gram max.
				1	294 gram
				2	318 gram
				3	262 gram
				4	315 gram
				5	291 gram

2-5	Single contact withdrawal force	Measure force withdrawal using 0.50mm square pin at speed 25± 3 mm per minute	More than 100gram	Sample	100 gram min.
				1	188 gram
				2	174 gram
				3	164 gram
				4	208 gram
				5	221 gram
2-6	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of Initial	Sample	
				1	2.90mΩ
				2	2.95mΩ
				3	3.05mΩ
				4	3.10mΩ
				5	3.10mΩ
2-7	Pin retention force	Push pin form insulator base at speed 25± 3 mm per minute	More than 1.0Kgf	Sample	1.0 Kgf min.
				1	2.22 Kgf
				2	2.10 Kgf
				3	2.18 Kgf
				4	2.09 Kgf
				5	2.31 Kgf
2-8	Locking force	While withdrawing plug & receptacle without terminal at speed 25± 3 mm per minute	More than 6.0 Kgf	Sample	6.0 Kgf min.
				1	8.52 Kgf
				2	8.53 Kgf
				3	8.38 Kgf
				4	8.48 Kgf
				5	8.49 Kgf
		While withdrawing plug & receptacle without terminal at speed 25± 3 mm per minute (Push latch for 500 times)		1	6.84 Kgf
				2	6.83 Kgf
				3	6.96 Kgf
				4	6.48 Kgf
				5	6.69 Kgf

3.ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Solderability	Soldering time:5±0.5second Soldering pot:230±5°C	Minimum: 90% of immersed area	Sample	90% min
				1	OK
				2	OK
				3	OK
				4	OK
				5	OK
3-2	Humidity	40±2°C，90-95%RH，96 hours measurement must be taken within 30 min. after tested	Appearance:No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 8-3	Sample	40MΩ max
				1	3.20 mΩ
				2	3.15 mΩ
				3	3.24 mΩ
				4	3.38 mΩ
				5	3.36 mΩ

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-3	Salt spray	Temperature:35±3°C Solution:5±1% Spray time:48±4hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial	Sample	40mΩ max
				1	4.24 mΩ
				2	4.20 mΩ
				3	4.36 mΩ
				4	4.42 mΩ
				5	4.48 mΩ